

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 133. (Cancelled)

134. (previously presented) A method for facilitating operations on data, the method comprising:

generating a display that visually depicts a table that includes a plurality cells;
wherein cells of the table are arranged in a plurality of cell arrays, including a first type of cell array and a second type of cell array,
wherein the first type of cell array is one of row and column, and the second type of cell array is the other of row and column;
wherein each cell of the plurality of cells is associated with an intersection of a cell array of the first type and a cell array of the second type;
displaying, within the plurality of cells, a plurality of values;
concurrently displaying a plurality of first controls, wherein each first control of the plurality of first controls is associated with a distinct cell array of the first type;
in response to input that selects any first control of the plurality of first controls,
performing a first operation based, at least in part, on values contained in the cells that belong to the cell array that is associated with the selected first control;
wherein the first operation belongs to the set consisting of:
an aggregating operation that combines at least some of the cell arrays of the second type to groups of cell arrays based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control, wherein after the aggregating operation the table contains one or more combined cell arrays, and wherein combined arrays that belong to the same group are displayed as single cell array;

a filtering operation that causes display of a panel that was not displayed prior to selection of the selected first control, wherein the panel presents an interface for specifying filtering criteria, and in response to receiving specification of filtering criteria through the interface, causes the table to display only arrays of the second type that have values, contained in the cells that belong to the cell array associated with the selected first control, that satisfy the specified filtering criteria;

a charting operation that causes display of a chart that is based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control; and

a hiding operation that causes the table to be redisplayed hiding the cell array associated with the selected first control.

135. (previously presented) The method of Claim 134 further comprising in response to input that selects any first control, changing the visual appearance of the selected first control so that the selected first control appears different than any of the plurality of first controls that are not currently selected.

136. (previously presented) The method of Claim 135 further comprising in response to input that deselects any first control that is currently selected, performing the steps of:

changing the visual appearance of the deselected first control so that the deselected first control appears different than any of the plurality of first controls that are currently selected; and

redisplaying the table having removed the effect of the first operation that was performed when the deselected first control was selected.

137. (previously presented) The method of Claim 134 further comprising, in response to input that selects any first control of the plurality of first controls, deselecting any other currently selected first control of said plurality of first controls.

138. (previously presented) The method of Claim 134 further comprising performing the first operation in response to input that selects any first control of the plurality of first controls without deselecting any other currently selected first control of said plurality of first controls.

139. (previously presented) The method of Claim 134 wherein:

each control of the plurality of first controls is located adjacent to the cell array of the first type that is associated with the control; and
each control of the plurality of second controls is located adjacent to the cell array of the first type that is associated with the control.

140. (previously presented) The method of Claim 139 wherein:

each control of the plurality of first controls is located above to the cell array of the first type that is associated with the control; and
each control of the plurality of second controls is located above to the cell array of the first type that is associated with the control.

141. (previously presented) The method of Claim 134 wherein at least one cell array of the first type of the plurality of cell arrays of the first type has both a corresponding first control of the plurality of first controls and a corresponding second control of the plurality of second controls.

142. (previously presented) The method of Claim 134 further comprising:

receiving input that indicates whether the plurality of first controls are uni-cell array controls;
if the input that indicates that the plurality of first controls are uni-cell array controls,
 then in response to input that selects any first control of the plurality of first controls,
 deselecting any other currently selected first control of said plurality of first controls,
 removing the effect of operation of said other currently selected first control,
 and
 displaying the table with effect of first control more recently selected; and
if the input that indicates that the plurality of first controls are not uni-cell array controls, then in response to input that selects any first control of the plurality of first controls, selecting the first control without deselecting any other currently selected first control of said plurality of first controls, and displaying the table with effect of all selected first controls.

143. (previously presented) The method of Claim 134 further comprising:
 generating a per table control associated with said first operation; and
 in response to selection of the per table control, automatically deselecting all currently selected first controls of the plurality of first controls, and displaying the table without effect of operations associated with deselected first controls.

144. (previously presented) The method of Claim 143 further comprising automatically storing history data that indicates which first controls were deselected in response to selection of the per table control.

145. (previously presented) The method of Claim 144 further comprising, in response to a second selection of the per table control, inspecting the history data and automatically selecting all first controls of the plurality of first controls that were previously selected, automatically

applying operations associated with selected controls to the table, and displaying table with effect of said operations.

146. (currently amended) The method of Claim 134 wherein:

the method further comprises displaying a plurality of second controls;
each control of the second controls is associated with one of said cell arrays;
the method further comprises, in response to input that selects any second control of
said plurality of second controls, performing a sorting operation based, at least in
part, on values contained in the cells that belong to the cell array that is
associated with the selected second control;
~~the first operation is the sorting operation;~~
currently selected ~~first~~ second controls establish a current sort criteria; and
the method further includes displaying a sort lock control which, when selected, locks
the currently selected sort criteria without regard to which cell arrays of the first
type are associated with the currently selected ~~first~~ second controls.

147. (currently amended) The method of Claim 134 wherein:

the method further comprises displaying a plurality of second controls;
each control of the second controls is associated with one of said cell arrays;
the method further comprises, in response to input that selects any second control of
said plurality of second controls, performing a sorting operation based, at least in
part, on values contained in the cells that belong to the cell array that is
associated with the selected second control;
~~the first operation is the sorting operation;~~
currently selected ~~first~~ second controls establish a current sort criteria; and
in response to a change in data contained in one or more cell arrays of the first type
associated with currently selected ~~first~~ second controls, dynamically rearranging
the cell arrays of the second type based on the current sort criteria.

148. (previously presented) The method of Claim 134 further comprising:

displaying a plurality of third controls, wherein each third control of the plurality of third controls is associated with a cell array of the first type of the plurality of cell arrays of the first type;

in response to input that selects any third control of the plurality of third controls, automatically displaying a plurality of fourth controls, wherein each fourth control of the plurality of fourth controls is associated with a cell array of the first type of the plurality of cell arrays of the first type;

in response to input that selects one of the plurality of fourth controls, moving the cell array of the first type that is associated with the selected third control to a position adjacent to the cell array of the first type that is associated with the selected fourth control.

149. (previously presented) The method of Claim 148 wherein:

the plurality of fourth controls include a first set of fourth controls and a second set of fourth controls;

if the selected fourth control is in the first set of fourth controls, then moving the cell array of the first type that is associated with the selected third control to a position that is adjacent to and to the left of the cell array of the first type that is associated with the selected fourth control; and

if the selected fourth control is in the second set of fourth controls, then moving the cell array of the first type that is associated with the selected third control to a position that is adjacent to and to the right of the cell array of the first type that is associated with the selected fourth control.

150. (previously presented) The method of Claim 134 wherein the first operation is a hiding operation, and the method further comprises:

in response hiding the cell array of the first type, automatically displaying one or more second controls, wherein each of the one or more second controls is associated

with a cell array of the first type that was adjacent to the hidden cell array of the first type; and
in response to input that selects one of the second controls, automatically redisplaying the hidden cell array of the first type.

151. (currently amended) The method of Claim ~~135~~ 134 further comprising:
displaying a cell array of the first type control actuation control; and
in response to input that selects the cell array of the first type control actuation control, performing the steps of
if the plurality of first controls and the plurality of second controls were not currently being displayed, then displaying the plurality of first controls and the plurality of second controls; and
if the plurality of first controls and the plurality of second controls were currently being displayed, then ceasing to display the plurality of first controls and the plurality of second controls.
152. (previously presented) The method of Claim 134 wherein:
the first operation is the aggregating operation; and
in response to performing the first operation, displaying a drill down control associated with each aggregated cell array of the second type that resulted from combining cell arrays of the second type during the aggregating operation;
in response to selection of the drill down control, ceasing to display the aggregated cell array of the second type, and redisplaying the cell arrays of the second type that were combined to produce the aggregated cell array of the second type.
153. (previously presented) The method of Claim 134 wherein:
the first operation is the aggregating operation; and
the aggregating operation is a range aggregating operation that combines cell arrays of the second type based, at least in part, on ranges of values contained in the cell array of the first type that is associated with the selected first control.

154. (previously presented) The method of Claim 134 wherein:
- the step of concurrently displaying a plurality of first controls includes displaying a hide control associated with at least one of the cell arrays of the first type for hiding the cell array of the first type;
 - receiving selection of the hide control;
 - displaying the table without displaying the cell array of the first type associated with the hide control.
155. (previously presented) The method of Claim 154 further comprising
- replacing the hide control with a reveal control that enables display of the hidden cell array of the first type.
156. (previously presented) The method of Claim 134 further wherein the step of concurrently displaying a plurality of first controls includes displaying a reveal control associated with at least one of the cell arrays of the first type for revealing the cell array of the first type.
157. (previously presented) The method of Claim 156 wherein the reveal control is displayed in a cell array of the first type adjacent to the hidden cell array of the first type.
158. (previously presented) The method of Claim 156 further comprising the steps of
- in response to a mouse rolling over the reveal control, selectively revealing the identity of the hidden cell array of the first type associated with the reveal control.
159. (previously presented) The method of Claim 156, further comprising the steps of
- receiving selection of the reveal control; and

displaying the table with the cell array of the first type associated with the reveal control and no longer displaying the reveal control.

160. (previously presented) The method of Claim 134 wherein:

the step of concurrently displaying a plurality of first controls includes displaying a first chart control associated with at least one of the cell arrays of the first type for generating a chart for the cell array of the first type;

the method further includes the steps of
receiving selection of the first chart control; and
displaying the chart for the cell array of the first type.

161. (previously presented) The method of Claim 160 further comprising the step of receiving deselection of the first chart control, thereby removing the displayed chart for the cell array of the first type.

162. (previously presented) The method of Claim 160 further comprising the step of visually marking the cell array of the first type that has been selected for charting.

163. (previously presented) The method of Claim 162 wherein the step of visually marking comprises modifying the displayed first chart control.

164. (previously presented) The method of Claim 163 further comprising the steps of
receiving selection of the modified first chart control, thereby closing the displayed chart for the cell array of the first type; and
modifying the displayed first chart control to indicate that the cell array of the first type has not been selected for charting.

165. (previously presented) The method of Claim 134 further comprising:

displaying a chart for a cell array of the first type; and
wherein the step of concurrently displaying a plurality of first controls includes
displaying first chart control associated with at least one of the cell arrays of the
first type for deselecting a said displayed chart for the cell array of the first type;
and
receiving selection of the first chart control, thereby removing the displayed chart for the
cell array of the first type.

166. (previously presented) The method of Claim 160 further comprising the step of
receiving deselection of the first chart control, thereby removing the displayed chart for the cell
array of the first type.

167. (previously presented) The method of Claim 160 further comprising the steps of
displaying a second chart control associated with at least one of the cell arrays of the
first type, different from the cell array of the first type associated with the first
chart control;
receiving selection of the second chart control;
automatically deselecting the first chart control; and
displaying the chart for the cell array of the first type associated with the second chart
control and removing the displayed chart associated with the first chart control.

168. (previously presented) The method of Claim 167 further comprising the step of
visually indicating that the cell array of the first type associated with the second chart
control has been selected for charting; and
wherein the step of deselecting the first chart control comprises removing the visual
indication that the cell array of the first type associated with the first chart
control has been selected for charting.

169. (currently amended) The method of Claim ~~162~~ 160 further comprising the steps of

displaying a second chart control associated with at least one of the cell arrays of the first type, different from the cell array of the first type associated with the first chart control;
receiving selection of the second chart control; and
displaying the chart for the cell array of the first type associated with the second chart control, in addition to the chart for the cell array of the first type associated with the first chart control.

170. (previously presented) The method of Claim 169 further comprising the step of visually indicating that the cell array of the first type associated with the second chart control has been selected for charting.

171. (previously presented) The method of Claim 169 wherein the chart for the cell array of the first type associated with the second chart control is displayed separately from the chart for the cell array of the first type associated with the first chart control.

172. (previously presented) The method of Claim 169 wherein the chart for the cell array of the first type associated with the second chart control is combined with the chart for the cell array of the first type associated with the first chart control.

173. (previously presented) The method of Claim 160 wherein the chart is a graph.

174. (previously presented) The method of Claim 160 wherein the step of selecting the first chart control is performed by a single action.

175. (previously presented) The method of Claim 134 wherein the step of concurrently displaying a plurality of first controls includes displaying a first sort control associated with at least one of the cell arrays of the first type for sorting the cell arrays of the second type of the table in a sort order based, at least in part, on the data in the associated at least one cell array of the first type, the method further comprising:

- receiving selection of the first sort control;
- displaying a first sort lock control for representing that the sort order of the cell arrays of the first type are to be maintained when the data in the associated at least one cell array of the first type changes;
- receiving selection of the first sort lock control; and
- displaying the table in the sort order and continuing to display the table in the sort order as the data in the associated at least one cell array of the first type changes.

176. (previously presented) The method of Claim 175 further comprising the step of visually marking the cell array of the first type that has been selected for sort locking.

177. (previously presented) The method of Claim 176 further comprising the steps of

- receiving deselection of the first sort lock control; and
- discontinuing the display of the table in the sort order as the data in the associated at least one cell array of the first type changes.

178. (previously presented) The method of Claim 177 further comprising the step of removing the visual indication that the cell array of the first type has been selected for sort locking.

179. (previously presented) The method of Claim 176 further comprising the steps of

displaying a second sort control associated with at least one of the cell arrays of the first type, different from the cell array of the first type associated with the first sort control, for sorting the cell arrays of the second type of the table in a sort order based, at least in part, on the data in the associated at least one cell array of the first type;

receiving selection of the second sort control;

automatically deselecting the first sort control and first sort lock control;

displaying a second sort lock control for causing the sort order of the cell arrays of the second type to be maintained when the data in the cell array of the first type associated with the second sort control changes;

receiving selection of the second sort lock control;

displaying the table in the sort order associated with the second sort control and continuing to display the table in the sort order as the data in the cell array of the first type associated with the second sort control changes.

180. (previously presented) The method of Claim 179 further comprising the step of visually indicating that the cell array of the first type associated with the second sort lock control has been selected for sort locking; and wherein the step of deselecting the first sort lock control comprises removing the visual indication that the cell array of the first type associated with the first sort lock control has been selected for sort locking.

181. (previously presented) The method of Claim 176 further comprising the steps of displaying a second sort control associated with at least one of the cell arrays of the first type, different from the cell array of the first type associated with the first sort control, for sorting the cell arrays of the second type of the table in a sort order based, at least in part, on the data in the associated at least one cell array of the first type; receiving selection of the second sort control;

displaying a second sort lock control for causing the sort order of the cell arrays of the second type to be maintained when the data in the cell array of the first type associated with the second sort control changes;
receiving selection of the second sort lock control;
displaying the table in the sort order associated with the first and second sort controls and continuing to display the table in the sort order as the data in the cell arrays of the first type associated with the first and second sort controls changes.

182. (previously presented) The method of Claim 181 further comprising the step of visually indicating that the cell array of the first type associated with the second sort lock control has been selected for sort locking.

183. (previously presented) The method of Claim 181 wherein the step of displaying the table in the sort order comprises sorting the table first based, at least in part, on the sort order associated with the first sort control and then on the sort order associated with the second sort control.

184. (previously presented) The method of Claim 181 wherein the step of displaying the table in the sort order comprises sorting the table first based, at least in part, on one of the sort orders associated with the first and second sort controls, based, at least in part, on the relative positions of the cell arrays of the first type associated with the first and second sort controls, and then on the sort order associated with the other sort control.

185. (previously presented) The method of Claim 134 wherein the step of concurrently displaying a plurality of first controls includes displaying a first aggregation control associated

with at least one of the cell arrays of the first type for aggregating cell arrays of the second type of the table based, at least in part, on aggregation criteria, the method further comprising:

receiving selection of the aggregation control;
displaying the table in aggregated form such that the content of the cell arrays of the second type have been grouped based, at least in part, on the aggregation criteria;
wherein displaying the table in aggregated form comprises removing the displayed cell arrays of the second type in the table, and
displaying a groups of cell arrays of the second type resulting from specified aggregation; and
applying selective functions to the underlying data in the grouped cell arrays of the second type.

186. (previously presented) The method of Claim 185 wherein the aggregation criteria specifies to use unique cell array of the first type cell values to group cell arrays of the second type.

187. (previously presented) The method of Claim 185 where aggregation criteria specifying to use a cell array of the first type cell values and applying a function to said cell values to group cell arrays of the second type.

188. (previously presented) The method of Claim 187 wherein a said function using range of cell array of the first type cell values to aggregate the data associated with the cell arrays of the second type grouped by the selected criteria.

189. (previously presented) The method of Claim 185 where selective function is a sum of cells values in corresponding group of cells.

190. (previously presented) The method of Claim 185 where selective function is average of cells values
in a corresponding group of cells.

191. (previously presented) The method of Claim 185 where selective function is range of cells values
in a corresponding group of cells.

192. (previously presented) The method of Claim 185 where selective function is a using a single value
in a corresponding group of cells.

193. (previously presented) The method of Claim 185 wherein the step of displaying the table is dynamically performed such that the table is displayed in aggregated form as data in the table changes.

194. (previously presented) The method of Claim 185 further comprising the steps of
prior to displaying the table in aggregated form, selectively displaying an aggregation control panel for specification of the aggregation criteria.

195. (previously presented) The method of Claim 185 further comprising the steps of
prior to displaying the table in aggregated form, automatically displaying an aggregation control panel for specification of the aggregation criteria.

196. (previously presented) The method of Claim 194 wherein the aggregation control panel contains aggregation criteria choices for specification of the aggregation criteria.

197. (previously presented) The method of Claim 185 wherein the step of displaying the table comprises

displaying the aggregated cell array of the second type as the first cell array of the second type.

198. (previously presented) The method of Claim 185 wherein the step of displaying the table comprises

displaying a drill down control for each of one or more grouped cell arrays of the second type.

199. (previously presented) The method of Claim 198 further comprises displaying a drill down control for each of one or more grouped cell arrays of the second type in or adjacent to first aggregated cell array of the first type.

200. (previously presented) The method of Claim 198 further comprising receiving selection of a drill down control for grouped cell array of the second type and displaying the resulting detail table for said grouped cell array of the second type.

201. (previously presented) The method of Claim 200 wherein displaying detail table includes displaying all of the cell arrays of the first type that were displayed prior to aggregation.

202. (previously presented) The method of Claim 200 wherein displaying detail table includes displaying preconfigured cell arrays of the first type.
203. (previously presented) The method of Claim 200 where operations applied in aggregated table are applied to detail table, in whole or in part.
204. (previously presented) The method of Claim 203 where operations are one or more of aggregating operation, a filtering operation, a charting operation, a moving operation, a sorting operation, a sort locking/unlocking operation, and a hiding operation.
205. (previously presented) The method of Claim 185 wherein the step of displaying the table comprises
- displaying only cell arrays of the first type capable of being aggregated based, at least in part, on the aggregation criteria.
206. (previously presented) The method of Claim 205 wherein the step of displaying only cell arrays of the first type displays only cell arrays of the first type having a numeric type and displays only derived values for those cell arrays of the first type.
207. (previously presented) The method of Claim 195 wherein the aggregation criteria choices are context sensitive.
208. (previously presented) The method of Claim 207 wherein the context sensitivity is based, at least in part, on a type of data in the cell array of the first type associated with the aggregation control.

209. (previously presented) The method of Claim 207 wherein the context sensitivity is based, at least in part, on the semantics of the cell array of the first type associated with the aggregation control.

210. (previously presented) The method of Claim 207 wherein the context sensitivity is based, at least in part, on a history of past aggregating operations on the cell array of the first type associated with the aggregation control.

211. (previously presented) The method of Claim 208 wherein the cell array of the first type associated with the aggregation control contains date data and the aggregation criteria comprises one or more of a day, week, month, quarter or year.

212. (previously presented) The method of Claim 208 wherein the cell array of the first type associated with the aggregation control contains text data and the aggregation criteria comprises a regular expression.

213. (previously presented) The method of Claim 194 wherein the aggregation criteria comprise range information.

214. (previously presented) The method of Claim 185 further comprising the step of visually indicating that the cell array of the first type has been selected for aggregation.

215. (previously presented) The method of Claim 214 further comprising the steps of receiving deselection of the aggregation control; and

discontinuing the display of the table in the aggregated form and displaying the table without the effect of aggregation.

216. (previously presented) The method of Claim 215 further comprising the step of removing the visual indication that the cell array of the first type has been selected for aggregation.

217. (previously presented) The method of Claim 185 further comprising the steps of displaying a second aggregation control associated with at least one of the cell arrays of the first type, different from the cell array of the first type associated with the first aggregation control;
receiving selection of the second aggregation control;
automatically deselecting the first aggregation control; and
displaying the table in aggregated form based, at least in part, on aggregation criteria associated with the first aggregation control.

218. (previously presented) The method of Claim 217 where step of selecting the second aggregation control is performed by a single action.

219. (previously presented) The method of Claim 185 further comprising the steps of displaying a second aggregation control associated with at least one of the cell arrays of the first type, different from the cell array of the first type associated with the first aggregation control;
receiving selection of the second aggregation control;
automatically deselecting the first aggregation control; and
displaying the table in aggregated form based, at least in part, on aggregation criteria associated with the second aggregation control.

220. (previously presented) The method of Claim 219 further comprising the steps of
prior to displaying the table in aggregated form based, at least in part, on aggregation
criteria associated with the second aggregation control, displaying an
aggregation control panel associated with the second aggregation control
containing aggregation criteria choices for specification of the aggregation
criteria; and
receiving selection of the aggregation criteria in the control panel.
221. (previously presented) The method of Claim 219 wherein the step of displaying the
table in aggregated form based, at least in part, on aggregation criteria associated with the
second aggregation control comprises
displaying the aggregated cell array of the first type associated with the second
aggregation control as the first cell array of the first type; and
displaying a drill down control for each of one or more cell arrays of the second type in
or adjacent to the aggregated cell array of the first type.
222. (previously presented) The method of Claim 221 where drill down control is displayed
in or adjacent to the first aggregated cell array of the first type.
223. (previously presented) The method of Claim 221 wherein the step of displaying the
table further comprises
displaying only other cell arrays of the first type capable of being aggregated based, at
least in part, on the aggregation criteria associated with the second aggregation
control.
224. (previously presented) The method of Claim 223 wherein the step of displaying only
other cell arrays of the first type displays only cell arrays of the first type having a numeric type
and displays only derived values for those cell arrays of the first type.

225. (previously presented) The method of Claim 185 wherein the step of selecting the aggregation control is performed by a single action.
226. (previously presented) The method of Claim 225 further comprising displaying table in aggregated form as a result of said single action.
227. (previously presented) The method of Claim 226 applying aggregation criteria used to aggregate table is aggregation criteria previously used in another cell array of the first type.
228. (previously presented) The method of Claim 134 wherein the step of the step of concurrently displaying a plurality of first controls includes displaying a first filtering control associated with at least one of the cell arrays of the first type for filtering the cell arrays of the second type of the table based, at least in part, on first filtering criteria, the method further comprising:
- receiving a selection of the filtering control; and
 - displaying portions of the table satisfying the filtering criteria.
229. (previously presented) The method of Claim 228 further comprising the steps of
- displaying a filtering control panel for specification of filtering criteria; and
 - receiving a selection of the filtering criteria.
230. (previously presented) The method of Claim 229 wherein the filtering control panel contains filtering criteria choices for specification of filtering criteria.

231. (previously presented) The method of Claim 230 wherein the filtering criteria choices are context sensitive.

232. (previously presented) The method of Claim 231 wherein the context sensitivity is based, at least in part, on a type of data in the cell array of the first type associated with the filtering control.

233. (previously presented) The method of Claim 231 wherein the context sensitivity is based, at least in part, on the semantics of the cell array of the first type associated with the filtering control.

234. (previously presented) The method of Claim 231 wherein the context sensitivity is based, at least in part, on a history of past filtering operations on the cell array of the first type associated with the filtering control.

235. (previously presented) The method of Claim 228 further comprising the step of visually indicating that the cell array of the first type has been selected for filtering.

236. (previously presented) The method of Claim 235 further comprising the steps of
receiving deselection of the filtering control; and
discontinuing the display of the table in filtered form and displaying the table without
the effect of filtering

237. (previously presented) The method of Claim 236 further comprising the step of removing the visual indication that the cell array of the first type has been selected for filtering.

238. (previously presented) The method of Claim 236 further comprising removing of filtering control panel for specification of the filtering criteria for deselected filtering control.

239. (previously presented) The method of Claim 228 further comprising the steps of displaying a second filtering control associated with at least one of the cell arrays of the first type, different from the cell array of the first type associated with the first filtering control, for filtering the cell arrays of the second type of the table based, at least in part, on second filtering criteria; and receiving selection of the second filtering control; and wherein the step of displaying portions of the table comprises displaying portions of the table satisfying the first filtering criteria and the second filtering criteria.

240. (previously presented) The method of Claim 231 wherein the cell array of the first type associated with the filtering control contains date data and the filtering criteria comprises one or more of a week, month, quarter or year.

241. (previously presented) The method of Claim 231 wherein the cell array of the first type associated with the filtering control contains date data and the filtering criteria comprises one or more dates and/or date ranges.

242. (previously presented) The method of Claim 231 wherein the cell array of the first type associated with the filtering control contains text data and the filtering criteria comprises a regular expression.

243. (previously presented) The method of Claim 229 wherein the step of entering filtering criteria is performed using a mouse.

244. (previously presented) The method of 229 where filtering panel is displayed in separate window.

245. (previously presented) The method of Claim 228 wherein the steps of displaying the table and displaying portions of the table are implemented using one or more of HTML, JAVA, and C# .

246. (previously presented) The method of Claim 134 wherein the step of concurrently displaying a plurality of first controls includes displaying a virtual cell array of the first type element associated with at least one of the cell arrays of the first type, the method further comprising:

receiving selection of the virtual cell array of the first type element, thereby making that cell array of the first type a virtual cell array of the first type; and
displaying the cell arrays of the first type in the table but not the virtual cell array of the first type.

247. (previously presented) The method of Claim 246 further comprising the steps of
receiving selection of the virtual cell array of the first type, thereby making that cell array of the first type a regular cell array of the first type; and
displaying the cell arrays of the first type in the table including the former virtual cell array of the first type.

248. (previously presented) The method of Claim 246 wherein the step of selecting the virtual cell array of the first type element is performed by a single action.
249. (previously presented) The method of Claim 134 further comprising
designating as a proxy cell array of the first type at least one of the cell arrays of the first type in the table, wherein the proxy cell array of the first type is not displayed;
displaying one or more controls for the proxy cell array of the first type, each control associated with an operation to be performed based, at least in part, on the proxy cell array of the first type;
receiving selection of one of the controls; and
displaying the result of the operation associated with the selected control.
250. (previously presented) The method of Claim 249 wherein:
the selected control is a sort control for sorting the cell arrays of the second type of the table in a sort order based, at least in part, on the data in the proxy cell array of the first type and the step of displaying the result comprises displaying the table sorted based, at least in part, on the data in the proxy cell array of the first type;
and
said table containing one or more cell arrays of the first type but not containing the proxy cell array of the first type.
251. (previously presented) The method of Claim 249 wherein the selected control is a chart control for generating a chart for the proxy cell array of the first type and the step of displaying the result comprises displaying the chart.
252. (previously presented) The method of Claim 249 wherein the selected control is a filter control for filtering the cell arrays of the second type of the table based, at least in part, on

filtering criteria for the proxy cell array of the first type and the step of displaying the result comprises displaying the table containing the filtered cell arrays of the second type.

253. (previously presented) The method of Claim 249 wherein the selected control is a aggregation control for aggregating the cell arrays of the second type of the table based, at least in part, on aggregation criteria for the proxy cell array of the first type and the step of displaying the result comprises displaying the table in aggregated form.

254. (previously presented) The method of Claim 249 wherein the step of selecting one of the controls is performed by a single action.

255. (previously presented) The method of Claim 134 wherein the step of receiving input is performed by receiving input generated in response to a single action.

256. (previously presented) The method of Claim 134 further comprising the step of selecting an arrangement of the displayed controls

257. (previously presented) The method of Claim 134 further comprising the step of displaying one or more multi-cell array of the first type operation controls.

258. (previously presented) The method of Claim 257 wherein the one or more displayed multi-cell array of the first type operation controls are each associated with a distinct type of operation that was selected for two or more cell arrays of the first type.

259. (previously presented) The method of Claim 258 further comprising the steps of
selecting one of the multi-cell array of the first type operation controls, thereby
deselecting the operations of the type associated with the multi-cell array of the
first type operation control; and
displaying the table as it appears without the deselected operations.
260. (previously presented) The method of Claim 259 further comprising the step of keeping
a history of the deselected operations.
261. (previously presented) The method of Claim 260 further comprising the step of selecting
previously deselected operations based, at least in part, on the history.
262. (previously presented) The method of Claim 257 wherein the selected operations are
one or more of a sort operation, a chart operation and a filtering operation.
263. (previously presented) The method of Claim 258 further comprising the steps of
for each of the two or more cell arrays of the first type for which the same distinct type
of operation was selected, displaying a control associated with the operation on
the cell array of the first type;
receiving deselection of the operation for one of the cell arrays of the first type;
displaying the table as it appears without the deselected operation, while continuing to
display the table as it appears when the same distinct type of operation is applied
to other cell arrays of the first type for which it was selected.
264. (previously presented) The method of Claim 263 wherein the step of deselecting is
performed by a single action.

265. (previously presented) The method of Claim 134 wherein the table is displayed as part of a web page.

266. (previously presented) The method of Claim 265 further comprising receiving input that manipulates the table through a web-based interface.

267. (previously presented) The method of Claim 255 further comprising the steps of
displaying one or more cell level override indicators, each associated with a cell in the
table, for changing the value in the cell,
receiving change for a value in one of the cells having a cell level override indicator;
and
displaying the table in accordance with selected operations on the table based, at least in
part, on the changed value.

268. (previously presented) The method of Claim 267 further comprising displaying one or more cell level unoverride indicators, each associate with a previously overridden cell.

269. (previously presented) The method of Claim 267 wherein unoverride indicators is control for reversing overridden values.

270. (previously presented) The method of Claim 269 further comprising
receiving selection of unoverride control and reversing the value in the cell to
original value.

271. (previously presented) The method of Claim 257 further comprising the step of visually marking the cell arrays of the first type associated with the selected controls.

272. (previously presented) The method of Claim 134 wherein the step of concurrently displaying a plurality of first controls includes displaying a control associated with at least one cell array of the first type, the control associated with an operation to be performed on the associated cell array of the first type and wherein the operation is dependent at least on the type of data in the cell array of the first type, the method further comprising:

receiving selection of the control, thereby causing the operation for the type of data in the cell array of the first type to be performed.

273. (previously presented) The method of Claim 134 wherein:

the step of generating a display includes providing code in a mark-up language that causes the generation of the display; and
the method includes, in response to performing the first operation, automatically providing mark-up language code that causes generation of an updated display based, at least in part, on the first operation.

274. (previously presented) The method of Claim 273 wherein:

the step of providing code in a mark-up language includes providing to a browser mark-up language code that causes the browser to generate the display; and
the step of automatically providing mark-up language code includes automatically providing, to the browser, mark-up language code that causes the browser to generate an updated display based, at least in part, on the first operation.

275. (previously presented) The method of Claim 274 wherein the step of providing mark-up language code to the browser includes generating the mark-up language code at a server that is

remote relative to the browser, and sending the mark-up language code to the browser over a network.

276. (previously presented) The method of Claim 273, wherein the mark-up language is HTML.

277. (previously presented) The method of Claim 134 wherein:
the table is displayed by a first device;
the method further comprises displaying by one or more
a second device concurrently displaying the table; and
updating the display of the table generated by both the first device and the
second device in response to selection of the first control at the first
device.

278. (previously presented) The method of Claim 134 wherein:
the values displayed in the cells of the table are based on data that resides in a data
source; and
when the table is updated to reflect the affect of the first operation, the values displayed
in the cells of the table are updated to reflect any changes that have been made to
the data within the data source.

279. (previously presented) The method of Claim 134 wherein at least one cell array of the
table contains financial data.

280. (previously presented) The method of Claim 134 wherein:
the first operation is a filtering operation;

prior to the filtering operation, a value total is displayed based on values in cell arrays of the second type of the table; and
after the filtering operation, the value total is updated based on values in the cell arrays of the second type that remain in the table after the filtering operation.

281. (previously presented) The method of Claim 134 wherein the values displayed in the cells of the table are based on data that is parsed and loaded from a data source.

282. (previously presented) The method of Claim 281 wherein the data source is one of
a source identified by a web page address;
a spreadsheet; and
a file.

283. (previously presented) The method of Claim 134 wherein:
the table is displayed by a first device connected to the network;
the method further comprises concurrently displaying the table by one or more remote devices connected to the network; and
updating the display of the table generated by the first device and by one or more remote devices in response to selection of the first control at the first device or one or more of the remote devices.

284. (previously presented) The method of any Claim 134 wherein the step of generating a display is performed in response to executing code of a program written in one or more of JAVA and C# .

285. (previously presented) The method of Claim 134 further comprising:

concurrently displaying a plurality of second controls, wherein each second control of the plurality of second controls is associated with a distinct cell array of the first type;

in response to input that selects any second control of the plurality of second controls, performing a second operation based, at least in part, on values contained in the cells that belong to the cell array that is associated with the selected second control;

wherein the first operation is a different operation than the second operation; and

wherein the second operation belongs to the set consisting of:

- a sorting operation that sorts cell arrays of the second type based, at least in part, on values contained in the cells that belong to the cell array associated with the selected second control;

- an aggregating operation that combines at least some of the cell arrays of the second type to groups of cell arrays based, at least in part, on values contained in the cells that belong to the cell array associated with the selected second control, wherein after the aggregating operation the table contains one or more combined cell arrays, and wherein combined arrays that belong to the same group are displayed as single cell array;

- a filtering operation that causes display of a panel that was not displayed prior to selection of the selected second control, wherein the panel presents an interface for specifying filtering criteria, and in response to receiving specification of filtering criteria through the interface, causes the table to display only arrays of the second type that have values, contained in the cells that belong to the cell array associated with the selected second control, that satisfy the specified filtering criteria;

- a charting operation that causes display of a chart that is based, at least in part, on values contained in the cells that belong to the cell array associated with the selected second control; and

- a hiding operation that causes the table to be redisplayed hiding the cell array associated with the selected second control.

286. (previously presented) The method of Claim 285 further comprising:
- in response to input that selects any first control of the plurality of first controls,
 - changing the visual appearance of the selected first control so that the selected first control appears different than any of the plurality of first controls that are not currently selected; and
 - in response to input that selects any second control of the plurality of second controls,
 - changing the visual appearance of the selected second control so that the selected second control appears different than any of the plurality of second controls that are not currently selected.
287. (previously presented) A method for Claim 134, further comprising:
- displaying at least a table on a first computing device for a first user;
 - sending, to at least one second computing device of at least one second user, a sharing message to the at least one second user to share at least in part a portion of a table;
 - wherein the sharing message includes an access identifier;
 - wherein the at least one second computing device is different from said first computing device of the first user;
 - in response to the at least one second user accepting the sharing message, the system using the access identifier to share with the at least one second user said sharable table.
288. (previously presented) A computer-readable medium carrying instructions which, when executed by one or more processors, cause the one or more processors to perform the method recited in any one of Claims 134-138, 141-165, 167-170, 174, 185, 188, 193, 203, 204, 207, 208, 214-218, 228-232, 239, 249-258, 265, 266, 273-277, 279, 281-287.

289. (currently amended) An apparatus for facilitating operations on data, the apparatus including a plurality of means, wherein the plurality of means includes means for performing each step of the method recited in ~~Claim 134~~ any one of Claims 134-138, 141-165, 167-170, 174, 185, 188, 193, 203, 204, 207, 208, 214-218, 228-232, 239, 249-258, 265, 266, 273-277, 279, 281-287.

290. (currently amended) A ~~financial~~ system for facilitating operations on data, the ~~method~~ system comprising:

means for generating a display that visually depicts a table that includes a plurality cells; wherein cells of the table are arranged in a plurality of cell arrays, including a first type of cell array and a second type of cell array,

wherein the first type of cell array is one of row and column, and the second type of cell array is the other of row and column;

wherein each cell of the plurality of cells is associated with an intersection of a cell array of the first type and a cell array of the second type;

means for displaying, within the plurality of cells, a plurality of values;

means for concurrently displaying a plurality of first controls, wherein each first control of the plurality of first controls is associated with a distinct cell array of the first type;

means for responding ~~in response~~ to input that selects any first control of the plurality of first controls, by performing a first operation based, at least in part, on values contained in the cells that belong to the cell array that is associated with the selected first control;

wherein the first operation belongs to the set consisting of:

an aggregating operation that combines at least some of the cell arrays of the second type to groups of cell arrays based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control, wherein after the aggregating operation the table

contains one or more combined cell arrays, and wherein combined arrays that belong to the same group are displayed as single cell array;

a filtering operation that causes display of a panel that was not displayed prior to selection of the selected first control, wherein the panel presents an interface for specifying filtering criteria, and in response to receiving specification of filtering criteria through the interface, causes the table to display only arrays of the second type that have values, contained in the cells that belong to the cell array associated with the selected first control, that satisfy the specified filtering criteria;

a charting operation that causes display of a chart that is based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control; and

a hiding operation that causes the table to be redisplayed hiding the cell array associated with the selected first control.

291. (previously presented) A method for facilitating operations on data, the method comprising:

generating a display that visually depicts a table that includes a plurality cells;

wherein cells of the table are arranged in a plurality of cell arrays, including a first type of cell array and a second type of cell array,

wherein the first type of cell array is one of row and column, and the second type of cell array is the other of row and column;

wherein each cell of the plurality of cells is associated with an intersection of a cell array of the first type and a cell array of the second type;

displaying, within the plurality of cells, a plurality of values;

concurrently displaying a plurality of first controls, wherein each first control of the plurality of first controls is associated with a distinct cell array of the first type;

where at least one first control has a visual indication that operation associated with said first control is performed on associated cell array

in response to input that selects any first control of the plurality of first controls that has said visual indication, performing a first operation based, at least in part, on values contained in the cells that belong to the cell array that is associated with the selected first control;

wherein the first operation is a deselection operation that undoes the effect of another operation, wherein the other operation belongs to the set consisting of:

an aggregating operation that combines at least some of the cell arrays of the second type to groups of cell arrays based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control, wherein after the aggregating operation the table contains one or more combined cell arrays, and wherein combined arrays that belong to the same group are displayed as single cell array;

a filtering operation that causes display of a panel that was not displayed prior to selection of the selected first control, wherein the panel presents an interface for specifying filtering criteria, and in response to receiving specification of filtering criteria through the interface, causes the table to display only arrays of the second type that have values, contained in the cells that belong to the cell array associated with the selected first control, that satisfy the specified filtering criteria;

a charting operation that causes display of a chart that is based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control; and

a hiding operation that causes the table to be redisplayed hiding the cell array associated with the selected first control.

292. (currently amended) A graphical user interface (GUI) for facilitating operations on data comprising:

a display that visually depicts a table that includes a plurality cells;

wherein cells of the table are arranged in a plurality of cell arrays, including a first type of cell array and a second type of cell array,

wherein the first type of cell array is one of row and column, and the second type of cell array is the other of row and column;

wherein each cell of the plurality of cells is associated with an intersection of a cell array of the first type and a cell array of the second type;

wherein the plurality of cells, a plurality of values;

a plurality of first controls, wherein each first control of the plurality of first controls is associated with a distinct cell array of the first type;

means for responding in response to input that selects any first control of the plurality of first controls, by performing a first operation based, at least in part, on values contained in the cells that belong to the cell array that is associated with the selected first control;

wherein the first operation belongs to the set consisting of:

- an aggregating operation that combines at least some of the cell arrays of the second type to groups of cell arrays based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control, wherein after the aggregating operation the table contains one or more combined cell arrays, and wherein combined arrays that belong to the same group are displayed as single cell array;

- a filtering operation that causes display of a panel that was not displayed prior to selection of the selected first control, wherein the panel presents an interface for specifying filtering criteria, and in response to receiving specification of filtering criteria through the interface, causes the table to display only arrays of the second type that have values, contained in the cells that belong to the cell array associated with the selected first control, that satisfy the specified filtering criteria;

- a charting operation that causes display of a chart that is based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control; and

- a hiding operation that causes the table to be redisplayed hiding the cell array associated with the selected first control.

293. (new) The method of Claim 134 wherein:

the first operation is the aggregating operation; and
at least one cell array of the table contains financial data.

294. (new) The method of Claim 134 wherein:

the first operation is the filtering operation; and
at least one cell array of the table contains financial data.

295. (new) The method of Claim 134 wherein:

the first operation is the charting operation; and
at least one cell array of the table contains financial data.

296. (new) The method of Claim 134 wherein:

the first operation is the hiding operation; and
at least one cell array of the table contains financial data.

297. (new) The system of 290 further comprising one or more view controls to display a view in response to activation of the view control, wherein each view control of the one or more view controls is associated with a view.

298. (new) The system of Claim 290 further comprising one or more view group controls to display one or more view controls in response to activation of any one of the view group controls, wherein one or more views are displayed in response to activation of the one or more view controls.

299. (new) The system of any one of Claims 297 and 298 wherein said table displays financial data.

300. (new) The system of Claim 299 wherein said table or chart displays financial data.

301. (new) The system of Claim 298 where one or more view groups include at least one view group from a set of financial view groups that consists of:

- a) Portfolio view group;
- b) Trades view group;
- c) Markets view group; and
- d) Trade Entry view group.

302. (new) The system of Claim 290, wherein the system displays an aggregated view, in which data is aggregated based at least in part on values contained in the cells that belong to one or more cell arrays, wherein the displayed view has at least one of an aggregated table or an aggregated chart.

303. (new) The system of Claim 302, wherein an aggregated view includes at least one view from a set of aggregated views that consists of:

- a) By Asset Class aggregated view;
- b) By Country aggregated view;
- c) By CounterParty aggregated view;
- d) By Currency aggregated view;

- e) By Industry aggregated view; and
- f) By Long/Short aggregated view.

304. (new) The system of any of claims Claim 302 or 303, further comprising detail view displayed in response to drilling down in the aggregated view.

305. (new) The system of 290 further comprising means for displaying set of views, wherein each view has at least a table.

306. (new) The system of Claim 305 wherein the means for displaying a set of views includes a view server configured to keep displayed views in-memory.

307. (new) The system of Claim 305 wherein the means for displaying a set of views includes a view server that receives data for views.

308. (new) The system of Claim 305 wherein the means for displaying set of views includes a view server that receives data for the views from one or more servers from the set of servers that consists of:

- a DataServer,
- an AnalyticalServer, and
- a TransactionServer.

309. (new) The system of claim 290 wherein the system is a financial portfolio system.

310. (new) The system of Claim 290 wherein the system is a financial market data system.

311. (new) The system of Claim 290 wherein the system is a real-time financial system.
312. (new) The method of Claim 134 wherein:
the method further comprises displaying a plurality of second controls;
each control of the second controls is associated with one of said cell arrays;
the method further comprises, in response to input that selects any second control of
said plurality of second controls, performing a sorting operation based, at least in
part, on values contained in the cells that belong to the cell array that is
associated with the selected second control.
313. (new) A computer-readable medium carrying instructions which, when executed by one
or more processors, cause the one or more processors to perform the method recited in Claim
312.
314. (new) An apparatus for facilitating operations on data, the apparatus including a
plurality of means, wherein the plurality of means includes means for performing each step of
the method recited in Claim 312.
315. (new) A computer-readable medium carrying instructions which, when executed by one
or more processors, cause the one or more processors to perform the method recited in Claim
291.
316. (new) An apparatus for facilitating operations on data, the apparatus including a
plurality of means, wherein the plurality of means includes means for performing each step of
the method recited in Claim 291.

317. (new) The method of Claim 134 wherein:

the first operation belongs to the set consisting of:

- an aggregating operation that combines at least some of the cell arrays of the second type to groups of cell arrays based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control, wherein after the aggregating operation the table contains one or more combined cell arrays, and wherein combined arrays that belong to the same group are displayed as single cell array;
- a filtering operation that causes display of a panel that was not displayed prior to selection of the selected first control, wherein the panel presents an interface for specifying filtering criteria, and in response to receiving specification of filtering criteria through the interface, causes the table to display only arrays of the second type that have values, contained in the cells that belong to the cell array associated with the selected first control, that satisfy the specified filtering criteria; and
- a charting operation that causes display of a chart that is based, at least in part, on values contained in the cells that belong to the cell array associated with the selected first control;

the step of generating a display includes generating a display screen; and

the first operation is performed without displaying additional display screens.

318. (new) A computer-readable medium carrying instructions which, when executed by one or more processors, cause the one or more processors to perform the method recited in Claim 317.

319. (new) An apparatus for facilitating operations on data, the apparatus including a plurality of means, wherein the plurality of means includes means for performing each step of the method recited in Claim 317.